AMENDMENT TO THE CLAIMS

1. - 216. (Cancelled)

217. (Currently Amended) A method for ~~modulating activity~~ inhibiting growth of a cancer cell expressing a β integrin subunit, the method comprising~~:~~ treating the cancer cell with an effective amount of an agent ~~that binds to a MAP kinase or cytoplasmic region of an integrin such that binding of the MAP kinase to a binding domain of the integrin for said MAP kinase is inhibited~~ comprising an amino acid sequence of the β integrin subunit that comprises a binding domain for a MAP kinase or a polypeptide moiety sufficiently homologous with the binding domain to bind to the MAP kinase, and wherein the MAP kinase is selected from the group consisting of members of the ERK and JNK MAP kinase families.

218. (Currently Amended) A method according to claim 217, wherein the agent comprises an amino acid sequence of the β integrin subunit that comprises a binding domain for a MAP kinase ~~a fragment of said integrin comprising the binding domain, or an analog or derivative thereof that binds to the MAP kinase such that the binding of the MAP kinase to the binding domain of the integrin is inhibited~~.

219. (Currently Amended) A method according to claim 217, wherein the agent comprises ~~a~~ the polypeptide moiety sufficiently homologous with the binding domain to bind to the MAP kinase~~or an analog or derivative thereof that binds to the MAP kinase or~~



WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

~~cytoplasmic region of an integrin such that the binding of the MAP kinase to the binding domain of the integrin is inhibited~~.

220. (Currently Amended) A method according to claim ~~227~~ 217, wherein the agent is a fusion protein incorporating the amino acid sequence or ~~an~~ the polypeptide ~~inhibitor~~ moiety ~~that binds to the MAP kinase or the cytoplasmic region of the integrin~~.

221. (Currently Amended) A method according to claim 217, wherein the agent further comprises ~~an inhibitor moiety that binds to the MAP kinase or the cytoplasmic region of the integrin and~~ a facilitator moiety ~~for facilitating~~ that facilitates passage of the amino acid sequence or the polypeptide ~~inhibitor~~ moiety across the cell membrane of the cancer cell~~,~~ and wherein the facilitator moiety is ~~linked~~ coupled to the amino acid sequence or the polypeptide ~~inhibitor~~ moiety.

222-224. (Cancelled)

225. (Currently Amended) A method according to claim ~~224~~ 217 wherein the cancer cell is a colon cancer cell.

226-237. (Cancelled)

238. (Currently Amended) A method according to claim ~~237~~ 217, wherein the cancer cell is a cancer cell of a cancer ~~is~~ selected from the group consisting of cancer of the lip, tongue, salivary glands, gums, floor and other areas of the mouth, oropharynx, nasopharynx, hypopharynx and other oral cavities, oesophagus,



WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

stomach, small intestine, duodenum, colon, rectum, gallbladder, pancreas, larynx, trachea, bronchus, lung, breast, uterus, cervix, ovary, vagina, vulva, prostate, testes, penis, bladder, kidney, thyroid and skin.

239-241. (Cancelled)

242. (Currently Amended) A method according to claim ~~241~~ 217 wherein the MAP kinase is ERK2.

243. (Currently Amended) A method according to claim 217 or 242 wherein the $\beta$ integrin subunit ~~integrin comprises an integrin subunit~~ is selected from the group consisting of $\beta$3, $\beta$5 and $\beta$6.

244. (Currently Amended) A method according to claim 217 wherein ~~the agent~~ the amino acid sequence or the polypeptide ~~inhibitor~~ moiety comprises ~~a polypeptide having~~ an amino acid sequence selected from the group consisting of RSKAKWQTGTNPLYR (SEQ ID No. 2), RARAKWDTANNPLYK (SEQ ID No. 22), RSRARYEMASNPLYR (SEQ ID No. 23), and RSKAKNPLYR (SEQ ID No. 3) ~~, or an analog or derivative of the polypeptide which binds to a binding site of the MAP kinase for the integrin~~.

245. (Currently Amended) A method according to claim 217 wherein the polypeptide moiety ~~agent comprises a core amino acid sequence of the binding domain of the integrin or an analog or derivative of the core amino acid sequence which binds to a binding site of the MAP kinase for the integrin~~ comprises the binding domain of the $\beta$ integrin subunit in which one or more amino acids in a



WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

region of the binding domain that is non-essential to the binding of the MAP kinase has been deleted.

246. (Cancelled)

247. (Currently Amended) A method for ~~modulating activity of a cell~~ prophylaxis or treatment of cancer in a mammal, the method comprising:

selecting an agent for ~~effecting the modulation of the cellular activity;~~ inhibiting growth of cancer cells that express a $\beta$ integrin subunit; and

~~treating the cell with~~ administering an effective amount of the agent to the mammal, ~~the agent binding to a MAP kinase expressed by the cell such that binding of the MAP kinase to a cytoplasmic region of an integrin is inhibited.~~ the agent comprising an amino acid sequence of the $\beta$ integrin subunit that comprises a binding domain of the $\beta$ integrin subunit for a MAP kinase or a polypeptide moiety sufficiently homologous with the binding domain to bind to the MAP kinase, and wherein the MAP kinase is selected from the group consisting of members of the ERK and JNK MAP kinase families.

248. (Cancelled)

249. (Currently Amended) A method according to claim 247 ~~or 248~~ wherein the agent further comprises ~~an inhibitor moiety that binds to the MAP kinase and~~ a facilitator moiety that facilitates passage of the ~~inhibitor~~ amino acid sequence or the polypeptide moiety across the cell membrane of the cancer cells ~~the cell~~, and



WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

wherein the facilitator moiety is ~~linked~~ coupled to the amino acid sequence or the polypeptide ~~inhibitor~~ moiety.

250-251. (Cancelled)

252. (Currently Amended) A method according to claim ~~251~~ 247 wherein the cancer is selected from the group consisting of cancer of the lip, tongue, salivary glands, gums, floor and other areas of the mouth, oropharynx, stomach, small intestine, duodenum, colon, rectum, gallbladder, pancreas, larynx, trachea, bronchus, lung, breast, uterus, cervix, ovary, vagina, vulva, prostate, testes, penis, bladder, kidney, thyroid and skin.

253. (Currently Amended) A method according to claim 247 wherein the MAP kinase is ~~a member of the ERK family or the JNK family~~ ERK2.

254. (Currently Amended) A method according to claim 247 or 253 wherein the β integrin subunit ~~integrin comprises an integrin subunit~~ is selected from the group consisting of β3, β5 and β6.

255. - 263. (Cancelled)

264. (New) A method according to claim 247 wherein the amino acid sequence or the polypeptide inhibitor moiety comprises an amino acid sequence selected from the group consisting of RSKAKWQTGTNPLYR (SEQ ID No. 2), RARAKWDTANNNPLYK (SEQ ID No. 22), RSRARYEMASNPLYR (SEQ ID No. 23) and RSKAKNPLYR (SEQ ID No. 3).

265. (New) A method according to claim 247 wherein the polypeptide moiety comprises the binding domain of the β integrin subunit in which one or more amino acids in a region of the binding domain



WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

that is non-essential to the binding of the MAP kinase has been deleted.

266. (New) A method for prophylaxis or treatment of cancer in a mammal, comprising administering to the mammal an effective amount of an agent comprising an amino acid sequence of a $\beta$ integrin subunit expressed by cancer cells of the cancer that comprises a binding domain of the $\beta$ integrin subunit for a MAP kinase or a polypeptide moiety sufficiently homologous with the binding domain to bind to the MAP kinase, and wherein the $\beta$ integrin subunit is selected from the group consisting of $\beta$3, $\beta$5 and $\beta$6 integrin subunits.

267. (New) A method according to claim 266 wherein the agent further comprises a facilitator moiety that facilitates passage of the amino acid sequence or the polypeptide moiety across the cell membrane of the cancer cells and wherein the facilitator moiety is coupled to the amino acid sequence or the polypeptide moiety.

268. (New) A method according to claim 266 or 267 wherein the polypeptide moiety comprises the binding domain of the $\beta$ integrin subunit in which one or more amino acids in a region of the binding domain that is non-essential to the binding of the MAP kinase has been deleted.

269. (New) A method according to claim 266 or 267 wherein the cancer is selected from the group consisting of cancer of the lip, tongue, salivary glands, gums, floor and other areas of the mouth, oropharynx, stomach, small intestine, duodenum, colon, rectum, gallbladder, pancreas, larynx, trachea, bronchus, lung, breast,



WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313

uterus, cervix, ovary, vagina, vulva, prostate, testes, penis, bladder, kidney, thyroid and skin.

270. (New) A method according to claim 266 wherein the MAP kinase is ERK2 or JNK-1.

271. (New) A method according to claim 270 wherein the MAP kinase is ERK2.

272. (New) A method according to claim 266 wherein the $\beta$ integrin subunit is $\beta 6$.

273. (New) A method according to claim 272 wherein the MAP kinase is ERK2 or JNK-1.

274. (New) A method according to claim 273 wherein the MAP kinase is ERK2.



WEINGARTEN, SCHURGIN,
GAGNEBIN & LEBOVICI LLP
TEL. (617) 542-2290
FAX. (617) 451-0313